

**From:** Cynthia Caporale/ESC/R3/USEPA/US  
**Sent:** 3/2/2012 3:54:11 PM

**To:** [Ex. 4 - CBI]  
**CC:** [Ex. 4 - CBI]; Gary Newhart/CI/USEPA/US@EPA; Jennifer Gundersen/ESC/R3/USEPA/US@EPA; Jill Bilyeu/ESC/R3/USEPA/US@EPA; John Gilbert/CI/USEPA/US@EPA; Kelley Chase/R3/USEPA/US@EPA; Robin Costas/ESC/R3/USEPA/US@EPA; [Ex. 4 - CBI] Sella Burchette/ERT/R2/USEPA/US@EPA  
**Subject:** RE: EXTERNAL: Re: Completeness/Verification Check for R3 (WO 1201015 PART 1 Posted Feb 15)

Kelley and [Ex. 4 - CBI]

We agree with the conclusions stated below.

Cindy

P.S. (Kelley - I originally thought the response below was to a different report. That was not the case after I re-read the message so no correction to report file name needed.)

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**From:** [Ex. 4 - CBI]@lmco.com>  
**To:** Cynthia Caporale/ESC/R3/USEPA/US@EPA, Kelley Chase/R3/USEPA/US@EPA  
**Cc:** [Ex. 4 - CBI]; Gary Newhart/CI/USEPA/US@EPA, John Gilbert/CI/USEPA/US@EPA, [Ex. 4 - CBI] Sella Burchette/ERT/R2/USEPA/US@EPA, Robin Costas/ESC/R3/USEPA/US@EPA, Jennifer Gundersen/ESC/R3/USEPA/US@EPA, Jill Bilyeu/ESC/R3/USEPA/US@EPA  
**Date:** 03/01/2012 11:17 AM  
**Subject:** RE: EXTERNAL: Re: Completeness/Verification Check for R3 (WO 1201015 PART 1 Posted Feb 15)

Cynthia and Kelley,

Based on the response from the R3 Lab dated 2/28/12, the data included in File 1201015 FINAL PART 1 of 3 R33907 02 15 12 1045.pdf and included in the Verification/Completeness Check issued on 2/15/12 (document SERAS-001-DSR-021512\_Dimock\_8), the following qualifiers are recommended for the 2-methoxyethanol data:

- The LCS recovery for BS1 was outside of the 80-120% recovery limits (61%). Data should be qualified "UJ" for 2-methoxyethanol for all samples analyzed in Batch BA22902.

For sodium (item #3), no qualification is needed since the sample concentration is much greater than the spike level.

If there are any questions, please do not hesitate to call.

[Ex. 4 - CBI]

**From:** Cynthia Caporale [mailto:Caporale.Cynthia@epamail.epa.gov]

**Sent:** Tuesday, February 28, 2012 8:18 AM

**To:** [Ex. 4 - CBI]

**Cc:** [Ex. 4 - CBI]; Gary Newhart; John Gilbert; Kelley Chase; [Ex. 4 - CBI]; Sella Burchette; Robin Costas; Jennifer Gundersen; Jill Bilyeu

**Subject:** EXTERNAL: Re: Completeness/Verification Check for R3 (WO 1201015 PART 1 Posted Feb 15)

The report on the Dimock Verification/Completeness Check for file 1201015 FINAL Part 1 of 3 R33907 02 15 12 1045.pdf was reviewed and below are the responses for your consideration.

File 1201015 FINAL PART 1 of 3 R33907 02 15 12 1045.pdf

1. For glycols, QC samples were reported for Batches BA22902 and BB20201. It is clear that BB20201 prepared on 2/2/12 is associated with samples HW25-P, HW26-P, HW26, HW35, HW20, HW20-P, HW32, HW32-P, HW33, HW33a-P, HW33b-P, HW29a, HW29, HW52 and FB07. Samples EB01, FB06, HW18, HW18-P and HW13 were prepped on 1/31/12 yet the QC samples were prepped on 1/29/12. Is the prep date of 1/29/12 incorrect or is the wrong set of QC samples reported in the laboratory analytical report?

**Response:** Batches and associated QC are prepared for every 20 samples. Since this is a direct injection method the batch can span multiple days (e.g., MS/MSD is only need once per 20 samples). Samples in BA22902 encompasses 2 days of analysis. Sample prep and analysis times are correct.

2. For those samples associated with the QC in Batch BA22902 (contingent upon answer to item #1), 2-methoxyethanol results should be qualified "UJ" based on the 61% recovery of this compound in the LCS.

**Response:** Since this is a direct injection method (no extraction or digestion) all QC associated within a batch is evaluated to determine accuracy or precision of a particular analyte. Since all other QC were within criteria for 2-methoxyethanol qualification on this one LCS result was determined to be unnecessary. For project usability, raising the quantitation limit would also be an option.

3. For ICP metals, the sodium matrix spike recovery for Batch BB20205 was 149%, which exceeded the QC range of 70-130%. All detected sodium results in this batch should be qualified estimated "J". This qualification is based on the assumption that the post spike recovery for this analyte in this sample did not exceed the QC limits. This data is not available in the laboratory analytical report.

**Response:** The sodium matrix spike was given a 'TD' flag. This notation means that the "Spike concentration is too dilute for accurate quantitation resulting in inaccurate recovery calculations." This occurs when the source sample has a very high concentration making the spike concentration statistically insignificant. Therefore, results would not be qualified.

4. Table 1 – Field and QC Sampling Summary lists mercury as a metal of interest. No data are reported for mercury in this file. As relayed during a teleconference on 2/21/12, mercury will be reported separately.

**Response:** No comment

5. The requested RL on the Methods for Surface Waters and Groundwaters lists the RL for Uranium as 10 µg/L. The laboratory reported 1.0 µg/L. As relayed during a teleconference on 2/21/12, the reported RL of 1.0 µg/L is correct. No response is necessary.

**Response:** No comment

6. The following samples had analytes that exceeded the federal maximum contaminant levels (MCLs): Aluminum for HW35 and HW29; iron for HW13, HW13-F and HW35; manganese for HW25-P, HW25-PF, HW26-P, HW26-PF, HW26, HW32-P, HW32-PF and HW32-F; and lead for HW35. It should be noted that several samples were close to their respective MCLs: Arsenic for HW32-PF and HW32-F; and manganese for HW29z.

**Response:** No comment

7. There were several non-typical metals that were detected in some of the drinking water samples for which no MCLs are available: Boron for HW18, HW18-P, HW18-F, HW18-PF, HW25-P, HW25-PF, HW26-P, HW26-PF, HW26, HW26-F, HW29z, HW29z-F, HW29 and HW29-F, strontium for HW18, HW13, HW18-P, HW18-F, HW13-F, HW18-PF, HW25-P, HW25-PF, HW26-P, HW26-PF, HW26, HW26-F, HW32, HW32-P, HW32-PF, HW32-F, HW29z, HW29z-F, HW29, HW29-F, HW52 and HW52-F; uranium for HU18-P, HW18-F, HW13-F and HW18-PF; and lithium for HW29z, HW29z-F, HW29 and HW29-F.

**Response:** No comment

8. It is assumed that all required instrument QC in the method was run and was within the criteria listed in the EPA R3 SOPs since this information is not available in the laboratory report.

**Response:** This assumption is correct and future reports will include a statement in the narrative.

Overall, based on the above comments and responses an impact to result values or qualifiers does not seem warranted.

If you should have any questions or need further discussion on the above response please feel free to contact me or Robin Costas at 410-305-2659.

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From: [Ex. 4 - CBI]  
To: Kelley Chase/R3/USEPA/US@EPA, Cynthia Caporale/ESC/R3/USEPA/US@EPA  
Cc: John Gilbert/CJ/USEPA/US@EPA, Gary Newhart/CI/USEPA/US@EPA, Sella Burchette/ERT/R2/USEPA/US@EPA, [Ex. 4 - CBI]  
Date: 02/22/2012 10:22 AM  
Subject: Completeness/Verification Check for R3 (WO 1201015 PART 1 Posted Feb 15)

.....is attached (1201015 FINAL PART 1 of 3 R33907 02 15 12 1045.pdf).

[Ex. 4 - CBI]  
*Lockheed Martin*  
*Scientific, Engineering, Response and Analytical Services (SERAS)*

[Ex. 4 - CBI]  
[attachment "SERAS-001-DSR-022212\_8.docx" deleted by Cynthia Caporale/ESC/R3/USEPA/US]